Chapter 4

Funding of Research Facilities Projects

Highlights . . .

- In fiscal years 1994-1995, funding for biomedical research space construction totaled $1,521 million. The largest proportion, 35 percent, of new biomedical construction was funded by state and local governments. Research organizations relied more heavily on debt financing than other biomedical research facilities, funding 49 percent of new construction this way.

- In fiscal years 1994-1995, biomedical research facilities spent $674 million to repair/renovate biomedical research space. Institutions used their own funds to finance 46 percent of all repair/renovation projects.

Data Considerations

Institutions reported the amount of money provided by different sources to fund both construction and repair/renovation projects. These data were not collected for individual S&E fields. Estimates of the percentages of funding from various sources for biomedical research capital projects were derived by prorating the distribution of overall S&E funding to the biological and medical sciences.

Institutions reported only on construction and repair/renovation projects that were for research space and that exceeded $100,000. Within the seven funding categories provided on the survey, considerable diversity is possible. For example, Federal funding can include specific facilities support programs administered by the National Institutes of Health (NIH) or the National Science Foundation (NSF). Federal funding might also include non-peer-reviewed projects that are specified individually through Congressional legislation rather than specific agency programs. There may be some overlap in the categories as well. For example, indirect costs included as institutional funds can come from Federal, state, and local governments.

No information was gathered in the survey that distinguished indirect cost recovery from other institutional funding, such as the use of operating or endowment funds.

In this report, all dollar figures for years prior to 1995 were adjusted using the Bureau of Census' Composite Fixed-Weighted Price Index for Construction. This adjustment means that dollar figures presented in this report do not match the previous reports' figures.

Findings

Funding for Construction Projects

Between the 1992-1993 and 1994-1995 fiscal years, the relative contribution of the Federal government to the construction of biomedical research space declined while the relative contribution of state and local governments increased. In 1994-1995, the Federal government contributed five percent of all construction dollars. This was a decline from both the 1990-1991 and 1992-1993 fiscal years when the Federal government contributed 13 percent of all construction dollars (Table 4-1). Funds from state and local governments represented the largest share of construction dollars in 1994-1995, 35 percent. This share increased from the previous two fiscal years when state and local governments contributed 24 percent of all construction funding for biomedical research facilities (Chart 4-1).

Table 4-1
Sources of funds for construction of biomedical research facilities, by year of project start and institution type: 1986-1995[1]

SOURCE OF FUNDS AND YEAR OF PROJECT START	Institution type				
	Total	Colleges/universities	Medical schools	Research organizations	Hospitals
[1995 constant dollars in millions]					
Total cost of construction projects:					
986-1987	$1,429	662	552	146	69
988-1989	1,753	531	896	89	237
990-1991	2,161	678	1,167	133	183
992-1993	2,244	489	1,277	195	285
1994-1995	1,521	509	751	67	194
[Percentage of total cost]					
Federal Government:					
986-1987		7	4	3	0
988-1989	5%	7	5	1	0
990-1991	5	19	11	15	0
992-1993	13	14	19	7	1
1994-1995	13	4	6	0	0
State/local government:	5				
986-1987	26	43	12	10	0
988-1989	25	42	22	20	0
990-1991	21	29	22	2	0
992-1993	24	26	38	0	6
1994-1995	35	49	22	0	0
Private donations:					
986-1987	36	24	47	53	15
988-1989	22	24	24	46	0
990-1991	18	10	18	12	46
992-1993	13	12	7	22	16
1994-1995	11	9	13	4	17
Debt financing:[2]					
986-1987	14	7	15	23	65
988-1989	25	22	27	25	29
990-1991	28	30	28	46	0
992-1993	31	23	29	56	43
1994-1995	30	26	36	49	61
Institutional funds:					
986-1987	17	16	20	9	20
988-1989	22	5	22	9	61
990-1991	19	8	20	25	54
992-1993	16	21	7	15	7
1994-1995	18	11	22	47	22
Other:					
986-1987	3	5	1	0	0
988-1989	1	0	0	0	0
990-1991	1	4	1	0	0
992-1993	3	4	0	0	27

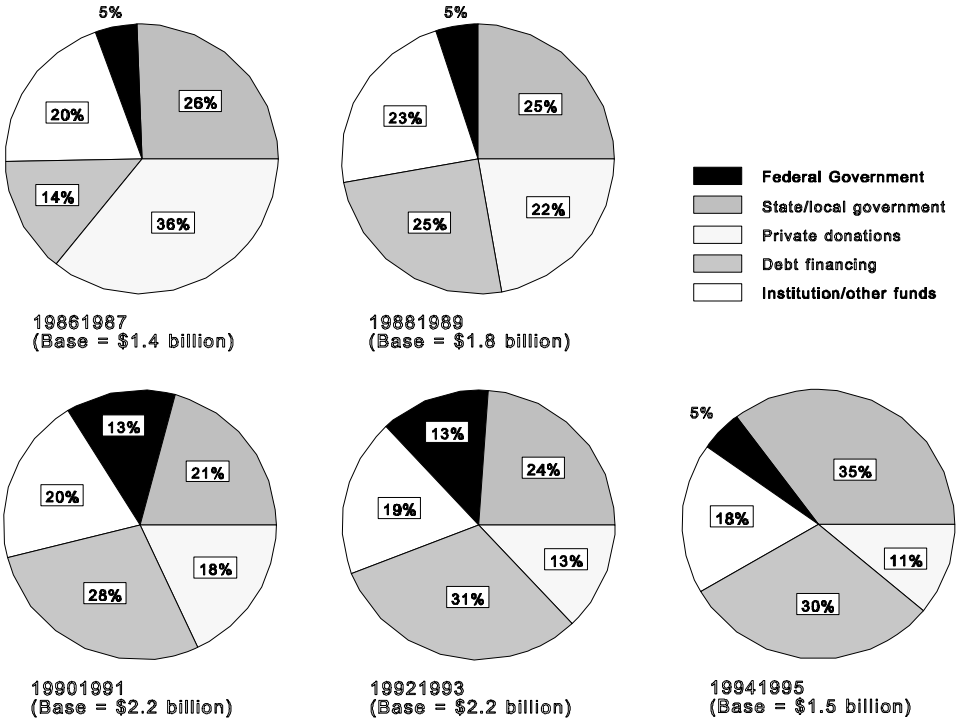
1994-1995	0	1	0	0	0

[1]Findings are limited to projects with estimated total cost at completion of $100,000 or more for research space. Estimates are prorated to reflect research components only. Current dollars have been adjusted to 1995 constant dollars using the Bureau of the Census' Composite Fixed-Weighted Price for Construction.

[2]Category includes tax-exempt bonds and other debt financing as reported in the questionnaire.

NOTE: Because of rounding, components may not add to totals.
SOURCE: National Institutes of Health, *The Status of Biomedical Research Facilities: 1994*, Bethesda, MD, 1997

Chart 4-1
Sources of funds for construction of biomedical research facilities: 1986-1995[1]



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NOTE: Because of rounding, components may not add to 100.

SOURCE: National Institutes of Health, *The Status of Biomedical Research Facilities: 1996,* Bethesda, MD, 1997

The percentage of dollars to start construction projects that came from tax-exempt bonds and other debt financing increased from 14 percent in 1986-1987 to 31 percent in 1992-1993 and 30 percent in 1994-1995. Debt financing was the dominant source of construction funding for medical schools, research organizations, and hospitals in 1994-1995.

For colleges and universities, state and local governments contributed almost half, 49 percent, of all construction dollars in fiscal years 1994-1995. Debt financing provided another 26 percent of their biomedical research construction funds in fiscal years 1994-1995 and institutional funds contributed 11 percent.

Medical schools used debt financing as the primary source to fund construction in 1994-1995. Thirty-six percent of all their construction dollars were derived from this source. State and local governments and institutional funds each contributed 22 percent.

Both research organizations and hospitals received all of their construction funding from three sources in 1994-1995: private donations, debt financing, and institutional funds. For research organizations, the 1994-1995 fiscal years were the only ones in which the Federal government provided none of the construction dollars.

Funding for Repair/Renovation Projects

Institutional funds remained the primary source of funding for the repair/renovation of biomedical research space in all types of institutions in fiscal years 1994-1995. These funds accounted for almost half, 46 percent, of all funding for these projects overall (Table 4-2). Institutional funds accounted for 51 percent of repair/renovation funding in medical schools and 39 percent in hospitals.

Overall, private donations represented 15 percent of the repair/renovation funding to biomedical research institutions (Chart 4-2). Hospitals received almost a third, 32 percent, of their repair/renovation funding from this source while research organizations received only 10 percent of their repair/renovation dollars from private donations.

State and local governments contributed 14 percent of the biomedical research repair/renovation dollars in 1994-1995 and debt financing represented 13 percent of these funds. As was the case with the funding of construction, research organizations were more likely to use debt financing to fund repair/renovation than any other type of institution. Research organizations derived 28 percent of all repair/renovation dollars from debt financing.

The Federal government is a relatively small contributor to the repair/renovation of biomedical research space. In fiscal years 1994-1995, the Federal government provided only 8 percent of all biomedical research repair/renovation dollars.

Table 4-2
Sources of funds for repair/renovation of biomedical research facilities, by year of project start and institution type: 1986-1995[1]

SOURCE OF FUNDS AND YEAR OF PROJECT START	Institution type				
	Total	Colleges/universities	Medical schools	Research organizations	Hospitals
[1995 constant dollars in millions]					
Total cost of repair/renovation projects:					
1986-1987	$658	249	317	30	63
1988-1989	615	216	277	35	89
1990-1991	629	212	326	34	57
1992-1993	710	148	378	41	143
1994-1995	674	186	327	31	130
[Percentage of total cost]					
Federal Government:					
1986-1987		3	4	8	2
1988-1989	4%	3	8	13	33
1990-1991	10	4	5	19	3
1992-1993	5	6	7	4	2
1994-1995	5	8	7	2	1
	8				
State/local government:					
1986-1987	17	25	16	0	0
1988-1989	17	29	16	0	1
1990-1991	20	33	18	0	2
1992-1993	20	25	26	0	2
1994-1995	14	15	14	7	0
Private donations:					
1986-1987	12	9	12	21	26
1988-1989	8	7	9	30	3
1990-1991	14	16	15	8	6
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1986-1987	50	49	47	67	54
1988-1989	53	51	50	53	56
1990-1991	51	45	48	57	81
1992-1993	50	35	48	81	62
1994-1995	46	45	51	47	39
Other:					
1986-1987	1	1	1	4	0
1988-1989	0	0	0	4	0
1990-1991	0	0	0	0	0
1992-1993	2	1	3	0	0
1994-1995	3	4	0	6	21

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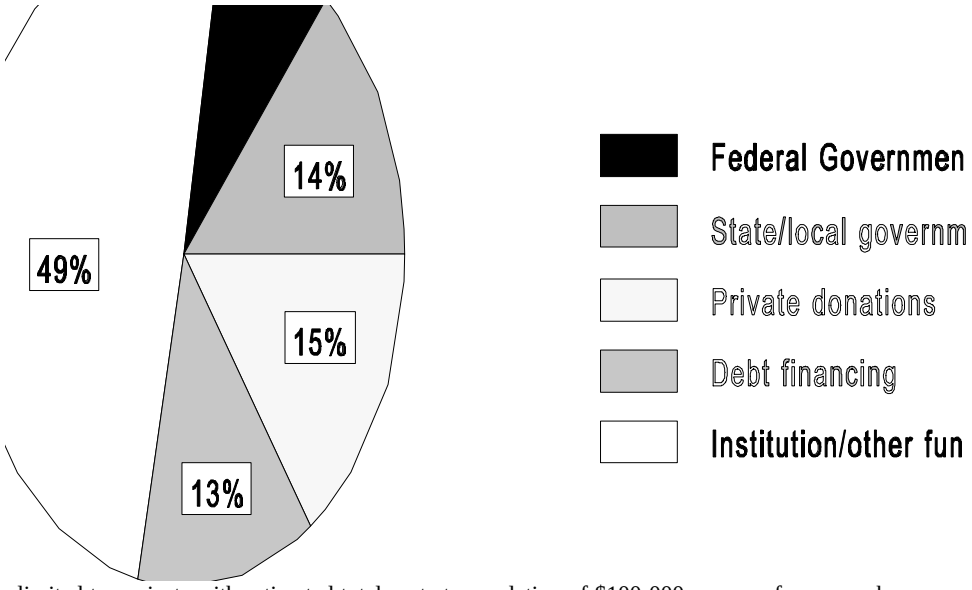

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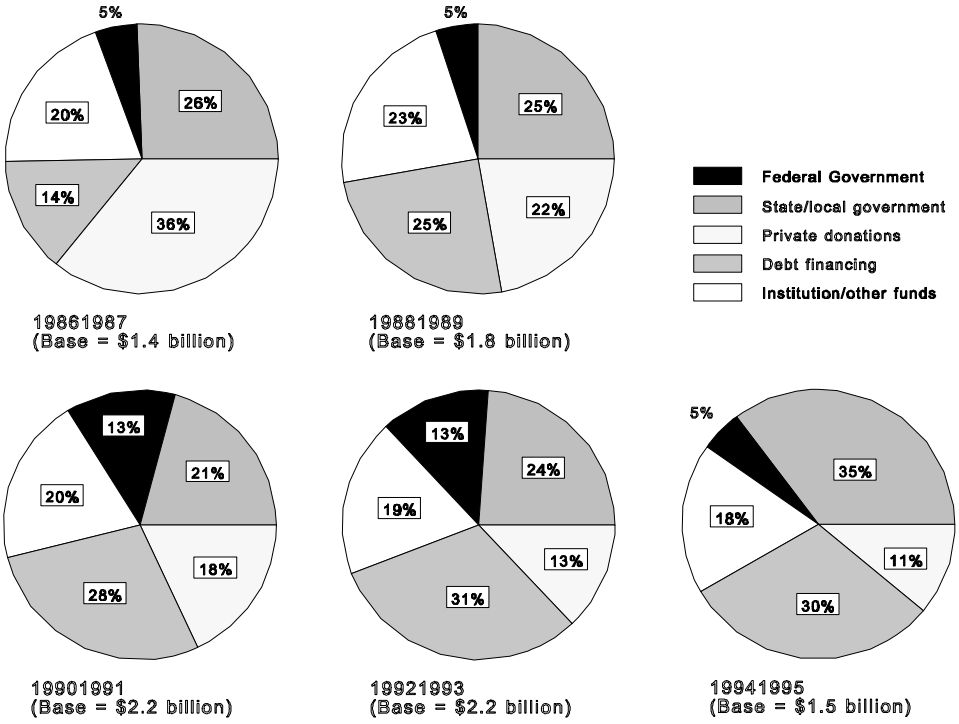

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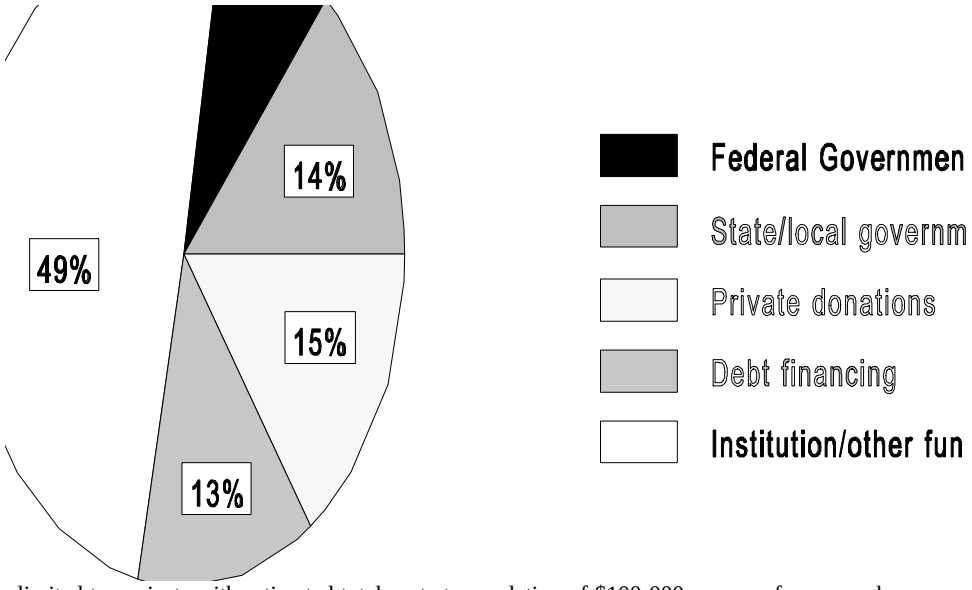

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